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viscoat arhtritis osteoarthritis

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hyaluroante chondroitin arhtritis

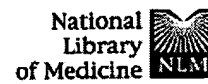
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Word Mark	VISCOAT
Goods and Services	IC 005. US 018. G & S: Ophthalmologic Solution Used as an Ophthalmo-Surgical Aid. FIRST USE: 19831001. FIRST USE IN COMMERCE: 19831001
Mark Drawing Code	(1) TYPED DRAWING
Serial Number	73448198
Filing Date	October 17, 1983
Published for Opposition	July 31, 1984
Registration Number	1299251
Registration Date	October 9, 1984
Owner	(REGISTRANT) Cilco, Inc. CORPORATION DELAWARE 1616 13th Ave. Huntington WEST VIRGINIA 25701 (LAST LISTED OWNER) ALCON SURGICAL, INC. CORPORATION ASSIGNEE OF DELAWARE 6201 SOUTH FREEWAY FORT WORTH TEXAS 76134
Assignment Recorded	ASSIGNMENT RECORDED
Type of Mark	TRADEMARK
Register	PRINCIPAL
Affidavit Text	SECT 15. SECT 8 (6-YR).
Live/Dead Indicator	LIVE

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Dynamic Search: All Databases in Drug Directories

Records for: **viscoat**

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Output

Format: Full Record

Output as: Browser

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Records 1 of 33 In full Format

- ☐ 1. 1/9/1 (Item 1 from file: 107) DIALOG(R)File 107:Adis R&D Insight (c) 2003 Adis International Ltd. All rts. reserv.
00124596 011428
Drug Name: Hyaluronan/chondroitin sulfate
Record Revision Date: 20010706
Brand Name: Viscoat
Synonyms: Chondroitin sulfate/hyaluronan; Hyaluronan/chondroitin sulphate; Hyaluronic acid/chondroitin sulfate; Hyaluronic acid/chondroitin sulphate; Sodium hyaluronate/chondroitin sulfate; Sodium hyaluronate/ chondroitin sulphate
WHO ATC Code: S01K-A - Viscoelastic Substances
EPHMRA ATC Code: S1S1 - Viscoelastic Substances
Mechanism of Action: Hyaluronan agonists

Originator Company: Alcon (USA)

Parent Company: Nestle

Other Company: Alcon; Lifecore Biomedical

Highest Phase: Launched

Development Status: Launched, France, Eye surgery

Launched, Italy, Eye surgery

Launched, New Zealand, Eye surgery

Launched, South Africa, Eye surgery

Launched, Sweden, Eye surgery

Launched, USA, Eye surgery

Text:

Introduction:

Alcon (a subsidiary of Nestle) is marketing a product containing both hyaluronan (hyaluronic acid, sodium hyaluronate) and chondroitin sulfate as **Viscoat sup((R))** for use as an aid in eye surgery. The product is launched in the USA, France, Italy, South Africa, Sweden and New Zealand.

Viscoat sup((R)) is a transparent, viscoelastic solution which maintains a deep chamber during anterior segment procedures, enhances visualisation during the surgical procedure, and protects the corneal endothelium and other ocular tissues. The viscoelasticity of the solution maintains the normal position of the vitreous face, thus preventing formation of a postoperative flat chamber. The hyaluronan component of **Viscoat sup((R))** is supplied by Lifecore Biomedical.

Pharmacology Overview:

Mechanism of action:
Hyaluronan agonists

Clinical Overview:

Route(s) of Administration: Ophthalmic

Drug Update Information:

06-Jul-2001: Profile reviewed by Lifecore Biomedical

22-Jan-1999: Launched for Eye surgery in France (Ophthalmic)

22-Jan-1999: Launched for Eye surgery in Italy (Ophthalmic)

22-Jan-1999: Launched for Eye surgery in New Zealand (Ophthalmic)

22-Jan-1999: Launched for Eye surgery in South Africa (Ophthalmic)

22-Jan-1999: Launched for Eye surgery in Sweden (Ophthalmic)

22-Jan-1999: Launched for Eye surgery in USA (Ophthalmic)

22-Jan-1999: New profile

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STRUCTURE FILE UPDATES: 18 MAR 2003 HIGHEST RN 499968-86-4
DICTIONARY FILE UPDATES: 18 MAR 2003 HIGHEST RN 499968-86-4

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Experimental and calculated property data are now available. See HELP
PROPERTIES for more information. See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

E1 1 VISCO L 357/CN
E2 1 VISCO Q 3E/CN
E3 1 --> VISCOAT/CN
E4 1 VISCOAT 150/CN
E5 1 VISCOAT 155/CN

=> s e3;d ide can

L1 1 VISCOAT/CN

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS
RN 123352-36-3 REGISTRY
CN Chondroitin, hydrogen sulfate, sodium salt, mixt. with hyaluronic acid
sodium salt (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Hyaluronic acid, sodium salt, mixt. contg. (9CI)
OTHER NAMES:
CN Viscoat
MF H2 O4 S . x Na . x Unspecified . Unspecified
CI MXS
SR CA

LC STN Files: BIOBUSINESS, BIOSIS, CA, CAPLUS, CIN, MEDLINE,
PHARMASEARCH,
PROMT, TOXCENTER, USPATFULL

CM 1

CRN 9067-32-7
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 9082-07-9
CMF H2 O4 S . x Na . x Unspecified

CM 3

CRN 9007-27-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 4

CRN 7664-93-9
CMF H2 O4 S

7 REFERENCES IN FILE CA (1962 TO DATE)
7 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:83679

REFERENCE 2: 135:55996

REFERENCE 3: 131:139516

REFERENCE 4: 130:32985

REFERENCE 5: 127:824

REFERENCE 6: 122:274105

REFERENCE 7: 111:187541

=> fil medl,biosis,drug,wpids;s (11 or viscoat) and (osteoarthri? or arthri?)

'DRUG' IS AN AMBIGUOUS FILE NAME

DRUGB - Derwent Drug File, Backfile 1964 - 1982 (Subscribers)

DRUGLAUNCH - IMS LifeCycle, New Product Focus from 1982-present

DRUGMONOG - IMS Product Monographs (Approved Pharm. Industry Users)

DRUGMONOG2 - IMS Product Monographs

DRUGNL - IMS Drug News 1991-present

DRUGPAT - IMS LifeCycle, Patent Focus

DRUGU - Derwent Drug File from 1983-present (Subscribers)

DRUGUPDATES - IMS LifeCycle, R&D Focus 1977-present

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	ENTRY	SESSION

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L5 0 FILE WPIDS
L6 0 FILE DRUGMONOG2
L7 0 FILE DRUGNL
L8 0 FILE DRUGPAT
L9 0 FILE DRUGUPDATES

TOTAL FOR ALL FILES

L10 0 (L1 OR VISCOAT) AND (OSTEOARTHRI? OR ARTHRI?)

=>

=> s (sodium chondroitin? (w)(sulphate or sulfate)) and (sodium hyaluron?) and (arthri?
or osteoarthri?)

L11 0 FILE MEDLINE
L12 0 FILE BIOSIS
L13 0 FILE DRUGLAUNCH
L14 1 FILE WPIDS
L15 0 FILE DRUGMONOG2
L16 0 FILE DRUGNL
L17 0 FILE DRUGPAT
L18 0 FILE DRUGUPDATES

TOTAL FOR ALL FILES

L19 1 (SODIUM CHONDROITIN? (W)(SULPHATE OR SULFATE)) AND
(SODIUM HYALU
RON?) AND (ARTHRI? OR OSTEOARTHRI?)

=> d

L19 ANSWER 1 OF 1 WPIDS (C) 2003 THOMSON DERWENT

AN 2002-424869 [45] WPIDS

CR 1997-350664 [32]; 1999-180053 [15]; 2000-374511 [32]; 2001-158209 [16];
2001-366833 [38]

DNC C2002-120307

TI Crosslinked polymer composition useful as a bioadhesive comprises a first
synthetic polymer having nucleophilic groups covalently bound to a second
synthetic polymer having electrophilic groups, to form three-dimensional
matrix.

DC A96 B04 B07 D22

IN BERG, R A; DELUSTRO, F A; RHEE, W M

PA (BERG-I) BERG R A; (DELU-I) DELUSTRO F A; (RHEE-I) RHEE W M

CYC 1

PI US 2002013408 A1 20020131 (200245)* 35p C08H001-00

ADT US 2002013408 A1 CIP of US 1995-573799 19951218, Cont of US 1996-769806
19961218, Cont of US 1999-229851 19990113, Cont of US 1999-302852
19990430, Cont of US 2000-733739 20001208, US 2001-932536 20010817
FDT US 2002013408 A1 Cont of US 5874500, Cont of US 6051648, Cont of US
6166130
PRAI US 1996-769806 19961218; US 1995-573799 19951218; US 1999-229851
19990113; US 1999-302852 19990430; US 2000-733739 20001208; US
2001-932536 20010817
IC ICM C08H001-00

=> FIL STNGUIDE

COST IN U.S. DOLLARS	ENTRY	SINCE FILE SESSION	TOTAL
FULL ESTIMATED COST		16.56	23.68

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LAST RELOADED: Mar 7, 2003 (20030307/UP).

=> fil wpids;d full

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FULL ESTIMATED COST		0.06	23.74

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L19 ANSWER 1 OF 1 WPIDS (C) 2003 THOMSON DERWENT

AN 2002-424869 [45] WPIDS

CR 1997-350664 [32]; 1999-180053 [15]; 2000-374511 [32]; 2001-158209 [16];
2001-366833 [38]

DNC C2002-120307

TI Crosslinked polymer composition useful as a bioadhesive comprises a first synthetic polymer having nucleophilic groups covalently bound to a second synthetic polymer having electrophilic groups, to form three-dimensional matrix.

DC A96 B04 B07 D22

IN BERG, R A; DELUSTRO, F A; RHEE, W M

PA (BERG-I) BERG R A; (DELU-I) DELUSTRO F A; (RHEE-I) RHEE W M

CYC 1

PI US 2002013408 A1 20020131 (200245)* 35p C08H001-00

ADT US 2002013408 A1 CIP of US 1995-573799 19951218, Cont of US 1996-769806 19961218, Cont of US 1999-229851 19990113, Cont of US 1999-302852 19990430, Cont of US 2000-733739 20001208, US 2001-932536 20010817

FDT US 2002013408 A1 Cont of US 5874500, Cont of US 6051648, Cont of US 6166130

PRAI US 1996-769806 19961218; US 1995-573799 19951218; US 1999-229851 19990113; US 1999-302852 19990430; US 2000-733739 20001208; US 2001-932536 20010817

IC ICM C08H001-00

AB US2002013408 A UPAB: 20020717

NOVELTY - A composition comprises a first synthetic polymer (P1) having nucleophilic groups and a second synthetic polymer (P2) having electrophilic groups. The nucleophilic and the electrophilic groups form covalent bonds between (P1) and (P2), which results in the formation of a three-dimensional matrix.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) effecting the nonsurgical attachment of a first surface to a second surface involving:

(a) preparing a mixture of (P1) and (P2) to initiate crosslinking;

(b) applying the mixture to a first surface before crosslinking has occurred; and

(c) contacting the first surface with the second surface to effect adhesion between the surfaces;

(2) introducing the composition into a tissue within the body of a mammalian subject involving:

- (a) administering (P1) and (P2) simultaneously to the tissue, and
- (b) allowing (P1) and (P2) to crosslink in situ;

(3) preventing the adhesion of a first tissue and a second tissue involving:

- (a) carrying out step (1a);
- (b) applying the mixture to the first tissue before crosslinking has occurred; and

(c) carrying out step (2b);

(4) coating a surface of a synthetic implant involving:

- (a) carrying out step (1a);
- (b) applying the mixture to a surface of the implant, and
- (c) allowing (P1) and (P2) to crosslink with each other on the surface of implant;

(5) preparing a negatively or positively charged compound-containing matrix useful for the delivery of a negatively or positively charged compound to a mammalian subject, respectively involving:

(a) carrying out step (1a) in which (P1) or (P2) is present in the mixture in molar excess compared to (P2) or (P1);

(b) allowing (P1) and (P2) to crosslink to form the positively or negatively charged crosslinked synthetic polymer matrix, and

(c) reacting the positively or negatively charged matrix with the negatively or positively charged compound, respectively; and

(6) making a synthetic lenticule involving:

(a) carrying out step (1a);

(b) placing the mixture into a lenticular shaped mold or onto a surface of an eye; and

(c) crosslinking (P1) and (P2) to form a clear lenticule.

USE - For coating surfaces of synthetic implants e.g. artificial blood vessels, artificial heart valves, surgical membranes, surgical meshes, breast implants, lenticules, vascular grafts, and vascular stent/graft combinations; for effecting nonsurgical attachment of surfaces; for introduction into a hard or soft mammalian tissue; for preventing tissue adhesion and tissue and surgical adhesion; for preparing positively and negatively charged compound-containing matrix useful for delivering the charged compounds to a mammalian subject; and for preparation of a synthetic lenticule (all claimed), e.g. is useful as a bioadhesive, for augmenting soft tissues (e.g. urinary, anal and esophageal sphincters, in the treatment of scars and rhytids) and hard tissues (e.g. in repair and replacement of bone and/or cartilaginous tissue, and as replacement material for synovial fluid in osteoarthritic joints, nucleus pulposus of a damaged intervertebral disk and vitreous) within the body of a mammalian subject; as a localized drug delivery matrix for delivering various types of drugs, other biologically active agents (e.g. growth factors, enzymes, hormones,

antibiotics), living cells (e.g. mesenchymal stem cells including osteoblasts, chondrocytes, fibroblasts; neurectodermal cell and epithelial cells) and genes (e.g. genetic material from natural sources, synthetic nucleic acids, DNA, anti-sense-DNA and RNA), to a desired site of administration; for blocking or filling lumens and voids in the mammalian subjects; as a biosealant to seal fissures or crevices within a tissue or structure or junctures between adjacent tissues or structures to prevent leakage of blood or other biological fluids; as a large space-filling device for filling device for organ displacement in the body cavity during surgical and radiation procedures e.g. to protect the intestines during a planned course of radiation to the pelvis; and as a sealant to coat the interior surface of the physiological lumen (e.g. blood vessel, Fallopian tube) to prevent restenosis of the lumen following medical treatment such as balloon catheterization, removal of endometrial tissue.

ADVANTAGE - The composition is optically clear and is biocompatible i.e. leaves no toxic, potentially inflammatory or immunogenic reaction products at the tissue site of administration. Hence does not require a skin test prior to beginning treatment as compared to the prior art compositions. The composition has a high compression strength and high swellability and elasticity and has an unusually high tackiness. The composition is not subject to enzymatic cleavage by matrix metalloproteinases and is therefore not readily degradable in vivo, thus exhibits a greater long-term persistence in vivo compared to prior art collagen compositions. The manufacturing of the composition can be highly controlled rendering more consistent quality of products. The composition is not easily degraded in vivo, hence cells and genes entrapped within the composition is isolated from the patient's own cells and as such do not provoke immune response in the patient. Further the potential for restenosis due to the degradation of the coating is also minimized, which is made possible by the composition having a net neutral charge. The composition reduces joint pain and improves joint function by restoring a soft hydrogel network in the joint.

Dwg.0/0

TECH US 2002013408 A1UPTX: 20020717

TECHNOLOGY FOCUS - POLYMERS - Preferred Components: (P1) contains nucleophilic groups (preferably amino or thiol, especially amino group) and is selected from either:

- (a) a synthetic polypeptide that contains at least two nucleophilic groups selected from a primary amino group (preferably lysine, especially poly(lysine)) or a thiol group (preferably cysteine); or preferably
 - (b) a polyethylene glycol (PEG) that is modified to contain at least two nucleophilic groups selected from a primary amino group or a thiol group.
- (P2) contains n electrophilic groups (preferably succinimidyl or succidyl, especially succinimidyl groups) and is selected from either
- (a) a synthetic hydrophilic polymer (preferably PEG derivative) containing at least two electrophilic groups (preferably succinimidyl groups); or

preferably

(b) a synthetic hydrophobic polymer which is chemically derivatized to contain at least two succinimidyl groups and is selected from disuccinimidyl suberate, bis(sulfosuccinimidyl) suberate, dithiobis (succinimidylpropionate), bis(2-succinimidooxycarbonyloxy) ethyl sulfone, or 3,3'-dithiobis (sulfosuccinimidylpropionate) or their analogs or derivatives; or a polyacid selected from trimethylolpropane-based tricarboxylic acid, di(trimethylol propane)-based tetracarboxylic acid, heptanedioic acid, heptanedioic acid, octanedioic acid or hexadecanedioic acid.

The first synthetic polymer has m nucleophilic groups, and the second synthetic polymer has n nucleophilic groups.

m, n = at least 2 (preferably at least 3);

m+n = at least 5

When m is at least 3, n is 2, and when n is at least 3, m is 2. The composition further comprises a naturally occurring polysaccharide (preferably glycosaminoglycan selected from hyaluronic acid, chitin, chondroitin sulfate A, B and C, keratin sulfate, keratosulfate or heparin or their derivatives) or naturally occurring protein (preferably collagen or its derivatives).

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Components: The negatively charged compound is succinylated collagen or glycosaminoglycan derivative selected from sodium hyaluronate, keratan sulfate, keratosulfate, sodium chondroitin sulfate A, B and C, heparin, esterified chondroitin sulfate C and/or esterified heparin. The positively charged compound is methylated collagen or glycosaminoglycan derivative selected from esterified deacetylated hyaluronic acid, esterified deacetylated desulfated chondroitin sulfate A and C, deacetylated desulfated keratan sulfate, deacetylated desulfated keratosulfate, esterified desulfated heparin and/or chitosan.

Preferred Method: The introduction of the composition into the tissue, (P1) and (P2) are contained within separate barrels of and administered from a dual compartment syringe and the method further involves an additional step of forming a mixture by mixing (P1) and (P2) before administration; and administering the mixture within 60 seconds of mixing. The preparation of synthetic lenticule further includes the naturally occurring protein.

TECHNOLOGY FOCUS - BIOLOGY - Preferred Method: In step (1c), either one of the first and the second surfaces is a native tissue surface and the other of the first and the second surfaces is a non-native tissue surface or a surface of a synthetic implant, or both the first and the second surfaces are native tissue surfaces.

FA AB; DCN

MC CPI: A11-C02; A12-V01; A12-V02; B04-C02; B04-C02E3; B04-C03; B04-C03B;
B04-C03C; B04-N02; B04-N04; B11-C04A; B14-C09; B14-F01G; B14-N01;
B14-N17B; D09-C01